

Design Scope of Services

Consultant will perform the following general Scope of Services:

- Provide up to five sets of design documents to the Clermont County TID
- Provide and electronic version in CAD of the final documents

Consultant will perform the following phased Scope of Services:

Phase 1: Preliminary Investigation

- Detailed measurements of existing structure
- Investigation and evaluation of individual structural elements, connections, and substructure
- Identification of materials: grade, strength and condition
- Sketches, photos and documentation of existing structure
- Preliminary analysis of existing structure to determine current load capacity
- Report on initial findings

Phase 2: Preliminary Design Alternatives

- Formulate design approach in order to achieve a minimum of a 12 ton load limit
- Investigate several design alternatives (adding arches, pier, chord post-tensioning, etc.)
- Prepare preliminary sketches of likely design alternatives
- Preliminary structural analysis of likely design alternatives in order to determine feasibility
- Report on findings, choose among design alternatives, receive client approval

Phase 3: Structural Design Development

- Perform detailed structural analysis calculations for client-approved design alternatives
- Size new members and any new connections; specify materials and sizes
- Identify deteriorated elements to be replaced, specify new material and sizes
- Develop rehabilitation drawings in CAD
- Develop specifications, structural notes and estimated quantities
- Prepare opinion of probable cost (estimate)
- Coordinate with State and Federal Agencies

Phase 4: Final Bridge Rehabilitation Design

- Submit final plans and specifications, which include the following:
- Repair or replacement of existing floor system and deteriorated truss members
- Add bracing to strengthen against wind loads
- Add structural elements to strengthen load capacity of the truss
- Installation of railing (and possibly timber curbing to protect the trusses)
- Roof system replacement and eave extensions (and possibly siding)
- Fire protection system